03050206-010

(Four Hole Swamp)

General Description

Watershed 03050206-010 is located in Orangeburg and Calhoun Counties and consists primarily of ***Four Hole Swamp*** and its tributaries from its origin to Bull Swamp. The watershed occupies 51,523 acres of the Upper Coastal Plain region of South Carolina. The predominant soil types consist of an association of the Noboco-Dothan-Rains-Wagram-Lakeland series. The erodibility of the soil (K) averages 0.15 and the slope of the terrain averages 3%, with a range of 0-6%. Land use/land cover in the watershed includes: 48.0% agricultural land, 36.4% forested land, 8.9% forested wetland (swamp), 2.9% urban land, 2.8% barren land, 0.7% water, and 0.3% nonforested wetland (marsh).

This section of Four Hole Swamp originates near the Town of St. Matthews and flows through Bull Pond before accepting drainage from Bay Branch, Flea Bite Creek, Cook Branch, Gin Branch, and Bull Swamp (Little Bull Swamp, Gramling Creek). There are a total of 63.8 stream miles and 114.5 acres of lake waters in this watershed. Four Hole Swamp, Bull Swamp, and Gramling Creek are classified FW* (site specific classification requires DO not less than 4.0 mg/l and pH between 5.0-8.5), and the remaining streams are classified FW.

Surface Water Quality

Station #	Type	Class	Description
E-022	S/W	FW*	GRAMLING CREEK AT CULVERT ON SC 33, 2 MILES E OF ORANGEBURG
E-076	S/W	FW	LITTLE BULL SWAMP AT SC 33 BELOW UTICA TOOL CO.
E-589	BIO	FW*	LITTLE BULL SWAMP AT SR 154

Gramling Creek (E-022) - Aquatic life uses are not supported due to dissolved oxygen excursions. There is a significant decreasing trend in pH. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Natural conditions in this stream may have contributed to the observed low dissolved oxygen values. This is also a secondary monitoring station and sampling is intentionally biased towards periods with potentially low dissolved oxygen concentrations. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.

Little Bull Swamp – There are two SCDHEC monitoring sites along Little Bull Swamp. Aquatic life uses are not supported at the upstream site ***(E-076)*** due to dissolved oxygen excursions, compounded by significant decreasing trends in dissolved oxygen concentration. There is a significant decreasing trend in pH. This is a blackwater system, characterized by naturally low pH and dissolved oxygen values. Natural conditions in this stream may have contributed to observed low pH and dissolved oxygen values. This is also a secondary monitoring station and sampling is intentionally biased towards periods with potentially low dissolved oxygen concentrations. A high concentration of chromium was detected in the 1998 sediment sample. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are partially supported at

this site due to fecal coliform bacteria excursions. At the downstream site ***(E-589)***, aquatic life uses are partially supported based on macroinvertebrate community data.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM / ***FACILITY NAME*** / ***PERMITTED FLOW @ PIPE (MGD)***	***NPDES#*** / ***TYPE*** / ***COMMENT***
GRAMBLING CREEK CWS/ROOSEVELT GARDEN APTS PIPE #: 001 FLOW: 0.0676	SC0029645 MINOR DOMESTIC
GRAMBLING CREEK ELECTROLUX HOME PRODUCTS PIPE #: 001-005 FLOW: M/R	SCG250130 MINOR INDUSTRIAL

Nonpoint Source Management Program

Land Disposal Activities

Land Application Sites

LAND APPLICATION SYSTEM / ***FACILITY NAME***	***ND#*** / ***TYPE***
TILE FIELD EASTWOOD SD	ND0067288 DOMESTIC

Mining Activities

MINING COMPANY / ***MINE NAME***	***PERMIT #*** / ***MINERAL***
LAFARGE MATERIALS, INC. JAMISON CLAY PIT	0206-75 CLAY
T&N ENTERPRISES ELLOREE MINE	0942-75 CLAY

Growth Potential

There is a low potential for growth in this watershed, which contains the Town of Cameron and a portion of the City of Orangeburg. Interstate 26 bisects the watershed with interchanges at U.S. 601 and S.C. 33 and should encourage some growth around the interchanges. Rail lines parallel U.S. 601 and S.C. 33, which run out of the City of Orangeburg. U.S. 176 parallels I-26 and runs through the Town of Cameron.